**Variables**

A variable is a letter or symbol that is used to represent and unknown quantity (e.g., ◼ + 4 = 12), a value that can vary (e.g., 4 + ⭘ =🞎), or a generalized number property (e.g., a + b = b + a). In the primary grades, geometric shapes, rather than letters, are often used as variables, since in the early stages of learning to read, students identify letters as sounds, rather than as quantities.

A Guide to Effective Instruction in Mathematics, Kindergarten to Grade 3 – Patterning and Algebra, page 30

**Variables Representing Unknown Quantities**

Variables can be used to represent unknown quantities that have a fixed value. In the following equations, each variable represents one and only one value:

A Guide to Effective Instruction in Mathematics, Kindergarten to Grade 3 – Patterning and Algebra, page 30 (see over for a copy of this page)

**Variables Representing Quantities that Vary**

Variables represent quantities that have no fixed value. In these equations, the value of one variable depends on the value of the other. In the following examples, substituting any number into one of the unknown variables affects the other unknown variable:

A Guide to Effective Instruction in Mathematics, Kindergarten to Grade 3 – Patterning and Algebra, page 30 (see over for a copy of this page)

Sort the cards included to match the variable definitions.